

REMARKS

Examiner's permission is respectfully requested to amend drawing Fig. 14 as indicated by the marked up drawing sheet. Support for the amendment of the drawings can be found on page 27, line 14, of the specification.

The specification is amended to correct typographic errors and informality therein. A marked-up version of the amended paragraphs in the specification is presented in

Appendix A attached to this response to Office Action.

Claims 1-35 have been amended, claims 36-50 have been cancelled without prejudice to the subject matters thereof, and new claims 51-63 have been added. Claims 1-35 and 51-63 are currently pending in the subject application. A marked up version of amended claims 1-35 is presented in Appendix B attached to this response to Office Action.

Claim 1 is an independent claim with claims 51-53 dependent therefrom.

Claim 2 is an independent claim with claims 3-9, 14-18, and 54-56 dependent therefrom.

Claim 19 is an independent claim with claims 10-13 and 57-59 dependent therefrom.

Claim 20 is an independent claim with claims 21-35 and 60-63 dependent therefrom.

Rejection of Claims 1-35 Under 35 U.S.C. § 103

Claims 1-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tagami et al. (U.S. Patent No. 5,812,070, herein after referred to as "Tagami") in view

of Klein et al. (U.S. Patent No. 5,726,885, herein after referred to as "Klein"). This rejection is respectfully traversed.

The invention disclosed and claimed in the subject application for patent includes a vehicle sharing system, a vehicle allocation system, and a method for sharing vehicles. In accordance with one embodiment of the present invention, a vehicle with the highest SOC within the group is selected and allocated in response to a user request. This is beneficial in improving the efficiency of vehicle battery charging operation. The specification of the subject application discloses on page 14, lines 6-23, that typically battery/charging systems for electrical vehicles have a characteristic as shown in the SOC versus time graph 210 as shown in Fig. 11. Between points 212 and 214 on the graph, the charging of the battery is essentially linear. Between points 214 and 216, the charging of the battery approaches 100% charge and the amount of charge obtained per unit time decreases. *By allocating vehicles with a higher state of charge, instead of merely allocating vehicles with a sufficient charge for a particular use, the SOC of vehicles within a central facility will tend to be less than the charge point 214 on the graph. By charging vehicles in the linear region between points 212 and 214, more effective use of the charging facilities is made than by charging vehicles in the range between points 214 and 216.* This method of allocating vehicles with the highest SOC, however, may be modified, as previously described, in order to provide vehicles for long trips. In cases where vehicles for long trips are needed, for example, the vehicles with the second highest charge could be

allocated for use in order to preserve the most highly charged vehicle for the long trip user. In cases where a greater demand for long trip vehicles was present, the vehicle with the second highest charge might also be reserved. The allocation of vehicles can be modified by statistical or simulated vehicle use in order to make the most efficient use of charging facilities, while at the same time attempting to accommodate the need for vehicles with high state of charge for long trips.

In accordance with one embodiment of the present invention, a vehicle with a highest SOC is allocated to a user. In accordance with another embodiment, a number of vehicles with high vehicles with highest SOC are reserved for user requests with long expected driving distance, and the remaining vehicles are allocated to users in the order for high SOC to low SOC. These vehicle allocation process improve the operation efficiency of the battery charger as discloses in the specification with reference to Fig. 11.

On the other hand, Tagami discloses from column 5, line 60, to column 6, line 15 that if the average traveled distance in the past usage recorded on the IC card of the user is relatively short, then the computer 60 selects, for the user, a motor vehicle C whose battery is not fully charged. In the case where the motor vehicles C are motor vehicles propelled by internal combustion engines, the computer 60 selects one of the motor vehicles C based on the remaining amount of fuel, and selects, for the user, a motor vehicle C whose remaining amount of fuel is low. Since the average traveled distance in the past usage of the user is relatively short, the user finds the selected motor vehicle C

satisfactory for his purpose, and the selected motor vehicle C has its usage or operating efficiency increased because it is available before its battery is fully charged. If the average traveled distance in the past usage recorded on the IC card of the user is relatively long, then the computer 60 selects, for the user, a motor vehicle C whose battery is fully charged. Consequently, the user can immediately use a motor vehicle C without any waiting time.

It respectfully submitted that Tagami discloses allocating vehicles with charge level sufficient to satisfy the users' need based on users' past usage records. If a user's past record indicates a short driving distance, a vehicle with a low charge level is allocated to the user. This allocation process assigns vehicles with low, but sufficient, charge levels out before assigning vehicles with high charge levels. Therefore, Tagami does not teach or suggest allocating vehicles of high SOC to users to improve the charging efficiency of vehicle batteries.

It is respectfully submitted that Klein does not teach or suggest the above-described features of the present invention. It is also respectfully submitted that Klein does not disclose having a user enter an expected distance of an intended trip as asserted on page 4 of the Office Action.

Therefore, Tagami in view of Klein cannot make the present invention obvious.

Specifically, claim 1 calls for, among other things, selecting a group of vehicles based on vehicle location information, each vehicle having a charge level adequate for the expected distance of the intended trip; and allocating a vehicle having a highest level of charge in the selected

group. At least a combination of these and other elements specified in claim 1 is neither taught nor suggested in Tagami and Klein, either singly or in combination. Therefore, Tagami in view of Klein cannot make claim 1 obvious.

Claim 2 calls for, among other things, selecting a group of one or more vehicles from the fleet based on vehicle location information, each selected vehicle having an SOC sufficient to meet the travel request; and allocating a vehicle having a highest SOC in the group for the user. At least a combination of these and other elements specified in claim 2 is neither taught nor suggested in Tagami and Klein, either singly or in combination. Therefore, Tagami in view of Klein cannot make claim 2 obvious.

Claim 3-9 and 14-18 depend from claim 2 and are therefore allowable over Tagami in view of Klein for at least the same reasons as claim 2.

Claim 19 calls for, among other things, allocating a vehicle within the group having an SOC above the SOC level; and in response to no vehicles within the group have an SOC above the SOC level, allocating a vehicle within the group having a highest SOC for the user. At least a combination of these and other elements specified in claim 19 is neither taught nor suggested in Tagami and Klein, either singly or in combination. Therefore, Tagami in view of Klein cannot make claim 19 obvious.

Claim 10-13 depend from claim 19 and are therefore allowable over Tagami in view of Klein for at least the same reasons as claim 19.

Claim 20 calls for, among other things, a computer system in communication programmed, in response to a travel

request received from a user, for selecting a group of one or more vehicles from the fleet based on vehicle location information, where each selected vehicle has an SOC sufficient to meet the travel request from the user, and for allocating a vehicle having a highest SOC in the group for the user. At least a combination of these and other elements specified in claim 20 is neither taught nor suggested in Tagami and Klein, either singly or in combination. Therefore, Tagami in view of Klein cannot make claim 20 obvious.

Claim 21-35 depend from claim 20 and are therefore allowable over Tagami in view of Klein for at least the same reasons as claim 20.

Objection of Claims 36-50

Claims 5-8 are objected to as being dependent upon rejected claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

By this amendment, claims 36-50 have been cancelled with prejudice to the subject matter thereof. Therefore the objection to claims 36-50 have become moot.

New Claims 51-63

By this amendment, new claims 51-63 have been added to the subject application. New claims 51-53 depend from claim 1 and substantially include the combination of elements in cancelled claims 36-38. New claims 54-56 depend from claim 2 and substantially include the combination of elements in cancelled claims 39-41. New claims 57-59 depend from claim 19

and substantially include the combination of elements in cancelled claims 42-45. New claims 60-63 depend from claim 20 and substantially include the combination of elements in cancelled claims 47-50. Therefore, claims 51-63 are allowable.

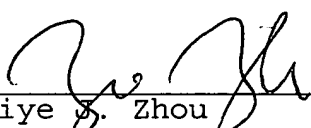
CONCLUSION

In view of above, claims 1-35 and 51-63 currently pending in the subject application are believed to be allowable and the subject application is in condition for allowance. Such action is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees to Manatt, Phelps & Phillips' Deposit Account No. 13-1241 or to credit any overpayment to the same for all matters during the prosecution of the subject application.

Respectfully submitted,

MANATT, PHELPS & PHILLIPS
Attorneys for Applicants


By: Ziye S. Zhou
Registration Number 41,423

Date: May 27, 2003

Manatt, Phelps, & Phillips
1001 Page Mill Road, Building 2
Palo Alto, CA 94304
Tel: 650-812-1300

APPENDIX A

MARKED UP VERSION OF AMENDED PARAGRAPHS IN THE SPECIFICATION

The paragraph on page 14, between line 3 and line 21:

91
A port facility can contain a plurality of charging facilities 169 (shown in Figs. 6 and 8) that are used to recharge the batteries of electrical vehicles. Typically battery/charging systems for electrical vehicles have a ~~characteristic as shown in the SOC versus time graph 210 as~~ shown in Fig. 11. Between points 212 and 214 on the graph, the charging of the battery is essentially linear. Between points 214 and 216, the charging of the battery approaches 100% charge exponentially and therefore the amount of charge obtained per unit time decreases. By allocating vehicles with a higher state of charge to users, instead of merely allocating vehicles with a sufficient charge for the users requested use, the vehicles within a central facility will tend to be used before the charge point 214 on the graph is reached. By charging vehicles in the linear region between points 212 and 214, more effective use of the charging facilities is made than by charging vehicles in the range between points 214 and 216. This method of allocating vehicles with the highest charge, however, may be modified, as previously described, in order to provide vehicles for long trip use (i.e. vehicles charged between 214 and 216 on the state of charge graph). In cases where vehicles for long trips are needed the vehicles with the second highest charge could be allocated for use in order to preserve the most highly charged vehicle for the long trip user. In cases where

DI
Cont'd

a greater demand for long trip vehicles was present, the vehicle with the second highest charge might also be reserved. The allocation of vehicles can be modified by statistical or simulated vehicle use in order to make the most efficient use of charging facilities, while at the same time attempting to accommodate the need for vehicles with high state of charge for long trips.

The paragraph on page 16, between line 8 and line 23:

P2

Vehicles may be relocated from one port facility to another in a variety of manners. For example, an attendant may simply drive the vehicle from one facility to the other. However, the attendant performing the relocation would then be displaced from his original location. Accordingly, two attendants may drive two vehicles [to] from one port to the next, leave one vehicle at the destination port and then both attendants may return to their original port in the other one of the two vehicles. However, that process requires two attendants to transport a vehicle between facilities. Accordingly, in a preferred embodiment, some or all of the vehicles within the fleet are provided with towing bar connectors and each port facility is provided with towing bars for connecting two vehicles together. In this manner, one vehicle may be readily connected to another and towed to a remote port facility by a single attendant. The attendant may then disconnect the connected vehicles, leave one of the vehicles for the user and return to the original port facility with the other one of the two vehicles. Alternatively a secondary vehicle, for example a motor scooter, may be secured to the second vehicle. The motor scooter can, upon delivery

P2
Contd of the vehicles, be used to transport both the attendant and the towing bar equipment thus allowing the two connected vehicles to remain at the destination port while the attendant and the towing equipment depart.

The paragraph on page 18, between line 3 and line 11:

P3 If the identification information received from the central facility matches the identification information (card key or token) entered by the user, [then] the user is allowed access to the vehicle, as shown in step 74, and a counter stops [starts] timing a preset time period, such as five minutes, as shown in step 76. In preferred embodiments, the vehicle subsystem employs an electronic door lock that is controlled to selectively unlock the vehicle, step 78, to allow access to the vehicle interior. In addition, counters within the vehicle subsystem are set and started for counting the number attempts of entering a personal identification number PIN, step 80, and for timing a preset time period by which a correct PIN must be entered, such as 200 seconds, step 82.

The paragraph between page 18, line 24, and page 19, line 23:

P4 In one preferred embodiment both the user's identification data and PIN are read from a user's identification card and communicated to the vehicle to be allocated to the particular user. As soon as the user's identification data and PIN are communicated to the vehicle to be allocated to the particular user, an authorized user may drive the vehicle on a trip without any further communication between the vehicle and the central facility. Upon use of the proper identification card and entry of a correct [pin] PIN

within the vehicle, the vehicle is ready to drive. The identification card reader 242 may be located on a window as shown Fig. 13. The PIN entry is accomplished by means of an input and display device, which may be mounted in a center console within the vehicle as shown in Fig. 13. In another preferred embodiment, the determination of whether the entered PIN is correct or not is made at the central facility, for additional security. In this case the valid [pin] PIN is not sent to the vehicle, instead the user in the vehicle enters a PIN which is then sent to the central facility for validity

determination. If the PIN is valid, [then] the central facility sends a notification of valid PIN to the vehicle. In particular, the central facility 12 preferably includes or operates with a database, table, algorithm, number encoded on the user's identification card, or the like which associates each user's identification information (card key or token) with the user's personal identification number PIN.

Accordingly, upon receiving the requesting user's identification information, the central facility 12 obtains that user's PIN, for example, by comparing the identification information with corresponding data base entries and reading PIN information associated in a database with the identification information. Furthermore, when the user enters a PIN in the user interface and display device in the vehicle, steps 86 or 100, the vehicle subsystem transmits the entered PIN to the central facility. The central facility then compares the PIN received from the vehicle subsystem with the PIN retrieved from the database, table, algorithm, user's identification card, or the like. If a sufficient match exists, [then] the user is considered to have entered a

OK Cont'd
correct PIN. The central facility may then send an enabling command to the vehicle, acknowledging that a correct PIN has been entered at the vehicle and the vehicle may be driven. The correct [pin] PIN can be maintained in the vehicle subsystem 18 for later identification of the user and enabling of the vehicle, even if the vehicle were not in communication with the central facility.

The paragraph between page 26, line 14, and page 27, line 13:

05
In preferred embodiments, the system 10 in Fig. 1 includes a plurality of port facility 14 located in geographically remote locations relative to each other, for example, at locations convenient for a large number of potential users, such as near train or bus stations, campuses, office parks, shopping areas or the like. Two examples of vehicle distribution port facility 14 are shown in Figs. 6 and 8[, respectively]. In the example embodiments of Figs. 6 and 8, the vehicle distribution port [10] facility 14 includes parking spaces 156 for parking a plurality of vehicles 16. In addition, the distribution port facility 14 [10] includes a computer subsystem 158 typically located at a kiosk 14 to facilitate user interaction. Fig. 7 shows a generalized block diagram representation of the computer subsystem 158, which includes a computer 160, a display and user interface device 162, and a communications interface 164 for communication with the central facility 12. The communications interface 164 may be, for example, a satellite, radio frequency RF or other wireless link, in which case, the interface 164 would include a transmitter/receiver. In a preferred embodiment of the invention, the interface 164

between the central office facility and the subsystem 158 may comprise a hard wired connection, such as through computers linked to the Internet. Such a preferred embodiment is illustrated in Fig. 14. In Fig. 14, the user's interface to the system is a kiosk containing a computer, display screen, and one or more input devices such as a card reader and a keyboard and touch screen. A kiosk computer 250 serves as a web client connected to the Internet. The system control computer 254 serves several functions, for example as the registration web-server 256 process computer, it also provides a monitoring and control process 264 for the system. The registration web-server 256 serves the kiosk [250] computer 250 web clients. The registration web-server 256 also allows access to the registration web-server 256 by other computers connected to the Internet. Having a web connection not only simplifies the connection of the kiosk [250] computer(s) 250 to the system by allowing the kiosk web clients 250 to be located anywhere there is a ready connection to the Internet, it allows access to the vehicle sharing system from other Internet connected computers. This is valuable for users of the system because they may access the system remotely, for example to make reservations for shared vehicles, to determine if vehicles are available at a port, to determine how long a wait there is for a vehicle, to apply for membership in the vehicle sharing system or for other reasons.

The paragraph on page 28, between line 3 and line 25:

Fig. 15 is a flow diagram of the process when a user seeks a shared vehicle. As the user approaches the kiosk the system is idling, block 270. The user then swipes their

identification card at the kiosk card reader as in block 272. The card read by the kiosk card reader is the same card as used at the vehicle to gain entry, and is also the same card used to gain access to the kiosk area. The kiosk computer then accesses the registration web server in block 274. When communication has been established between the registration web server 256 and the kiosk web client [250] computer 250, block 276 is executed. In block 276 user identification information, which has been obtained from the identification card, along with a kiosk ID identifying the transmitting

Ab
Cont'd
kiosk, is sent to the registration web server. Next in block 278 the registration web server 256 compares the user ID received from the kiosk web client [250] computer 250 to the active user list to see if the user is an authorized user. If the user ID is invalid, block 282, the user is told, in block 284, that their user ID is not valid and the system returns to the idle state in block 270. If the User ID is valid, block 280, [then] the registration web server 256 collects the user request information in block 284. The user request information consists of information such as vehicle destination, estimated time of the trip, and estimated distance of the trip. When the user information has been collected, the registration web server 256 queries the shared system database, in block 286, in order to satisfy the request. In block 288 the registration web server 256 [250] selects an available vehicle from the database 258 to satisfy the user request. In block 290 the user is asked if they accept or decline the offered vehicle. If the user declines the vehicle, block 294, the registration web server 256 disconnects as seen in block 296. If the user accepts the

OK
Conid
vehicle, in block 292, the registration web server 256 stores the trip request data in the shared vehicle database in block 298. Finally in block 300 a computer control process polls the vehicle request database and processes the request.

The paragraph between page 28, line 26, and page 29, line 7:

The computer subsystem 158 is preferably disposed in a well lit and highly visible location and, more preferably, is also housed within a building or enclosed structure 166 (as shown in Fig. [2] 6), to which access is controlled for user security. Access may be controlled by an attendant stationed at the port facility 14 or by a standard lock and key system, wherein a key to the door 168 is issued to each user.

201
However, in preferred embodiments, the door lock is controlled by a card key entry system and each user is issued a card key comprising a card on which magnetic, optical or other machine-readable data is recorded. In such systems, the enclosed structure 166 is provided with an electronic door lock [170 (Fig. 7)] and a card reader 172 disposed in a user accessible location outside of the structure 166, for example, adjacent the door 168.

The paragraph on page 29, between line 8 and line 17:

208
To gain entry to the structure 166, a user must swipe or insert the user's card key past or in the card reader 172, to allow data from the card to be read and communicated to the computer 160. The computer 160 is programmed to process the user ID and, provided user ID is in the database of currently valid users, controls the electronic door lock [170] to unlock the door 168 and allow the user to enter the structure 166. For example, the data may comprise a user identification code

*08
Contd*

or an expiration date code and the computer 160 may be programmed to compare user identification code with a database of valid user identification codes or compare the expiration date code with the current date. Thus, the computer 160 may be programmed to unlock the door [172] 168, only if the user identification code is valid or an expiration date has not passed.

APPENDIX B
MARKED UP VERSION OF AMENDED CLAIMS

1. (Twice Amended) A method for [determining an order of] allocating electric [vehicles for use depending on different charge levels of the] vehicles, comprising the steps of:
having a user enter an expected distance of an intended trip;
selecting a group of vehicles based on vehicle location information, each vehicle having a charge [levels which are] level adequate for [covering said] the expected distance of [an] the intended trip; and
allocating a vehicle having a highest level of charge in the selected group.
2. (Twice Amended) A method for allocating one or more vehicles from a fleet of [electric] electrically powered vehicles to one or more users, wherein each vehicle has a state of charge (SOC) at any given time, the method comprising:
receiving a travel request from a user;
selecting a group of one or more vehicles from the fleet based on vehicle location information, [where] each selected vehicle [has] having an SOC sufficient to meet the travel [request from the user] request;
and
allocating [the] a vehicle having [the] a highest SOC in the group for the user.
3. (Once Amended) A method as recited in claim 2, wherein:

[said step of] receiving a travel request comprises receiving information associated with an expected distance of travel; and

[wherein said step of] selecting a group comprises selecting one or more vehicles, each with a sufficient SOC to travel the expected distance.

4. (Once Amended) A method as recited in claim 2, wherein:
[said step of] receiving a travel request comprises receiving information associated with an expected time period of use; and

[wherein said step of] selecting a group comprises selecting one or more vehicles, each with a sufficient SOC to travel for the expected time period.

5. (Once Amended) A method as recited in claim 2, wherein:
[said step of] receiving a travel request comprises receiving information associated with an expected destination port and an expected distance of travel beyond a direct route to the destination port; and
[wherein said step of] selecting a group comprises selecting one or more vehicles, each with a sufficient SOC to travel the combined distance of the direct route to the destination port and expected distance of travel beyond the direct route.

6. (Once Amended) A method as recited in claim 2, further comprising [the step of] identifying the allocated vehicle to the user.

7. (Once Amended) A method as recited in claim 6, wherein [said step of] identifying the allocated vehicle to the user comprises displaying identification information to the user on a display device.
8. (Once Amended) A method as recited in claim 2, wherein [said step of] receiving a travel request comprises: displaying a map to the user; and receiving user-selected map locations [corresponding to locations] on the [displayed map through a user-interface associated with the displayed] map.
9. (Twice Amended) A method [for allocating one or more vehicles from a fleet of electric powered vehicles to one or more users,] as recited in claim 2, wherein:
receiving a travel request from [each vehicle has] a [state of charge (SOC) at any given time, the method comprising] user includes:
providing a user [-] interface terminal at one or more ports;
receiving the travel request [information] from a user at [a] the user [-] interface terminal;
and
communicating the travel request [information] to a computer;
selecting a group of one or more vehicles from the fleet includes operating the computer to select [a] the group of one or more vehicles; [from the fleet based on vehicle location information, where each selected vehicle has an SOC sufficient to meet the travel request information from the user;] and

allocating a vehicle having a highest SOC in the group
includes operating the computer to allocate the
vehicle [in the group having the highest SOC] for
the user.

10. (Once Amended) A method as recited in claim [9] 19,
wherein:
[said step of] receiving a travel request [information]
comprises receiving information associated with an
expected distance of travel; and

selecting [wherein said step of operating the computer to
select] a group comprises selecting one or more
vehicles, each with a sufficient SOC to travel the
expected distance.

11. (Once Amended) A method as recited in claim [9] 19,
wherein:
[said step of] receiving a travel request [information]
comprises receiving information associated with an
expected time period of use; and

selecting [wherein said step of controlling the computer
to select] a group comprises selecting one or more
vehicles, each with a sufficient SOC to travel for
the expected time period.

12. (Once Amended) A method as recited in claim [9] 19,
wherein:
[said step of] receiving a travel request [information]
comprises receiving information associated with an
expected destination port and an expected distance

of travel beyond a direct route to the destination
port; and

selecting [wherein said step of operating the computer to
select] a group comprises selecting one or more
vehicles, each with a sufficient SOC to travel the
combined distance of the direct route to the
destination port and expected distance of travel
beyond the direct route.

13. (Once Amended) A method as recited in claim [9] 19,
further comprising [the step of displaying vehicle
identification information on a display device at the
port facility from which travel information is received,]
identifying the vehicle allocated to the user.

14. (Once Amended) A method as recited in claim 9, wherein:
[said step of] providing a user [-] interface terminal at
one or more ports comprises:
providing a user [-] interface at a plurality of
ports disposed at geographically remote
locations relative to each other; and
defining, for each port, [has] a vehicle search
group (VSG) in which more than one and less
than all of the vehicle from the fleet may be
located at any given time; and
[said step of] operating the computer to select a group
of one or more vehicles from the fleet comprises
selecting [a] the group from the VSG of the port
from which travel information is received.

15. (Once Amended) A method as recited in claim 14, wherein defining a [the] VSG [of any given port] includes including vehicles parked at a parking facility at the port in the VSG.
16. (Once Amended) A method as recited in claim 15, wherein defining a [the] VSG [of any given port] further includes including vehicles due to arrive at the port within a preset time period in the VSG.
- Q1 Contd*
- ~~17. (Once Amended) A method as recited in claim 16, wherein defining a [the] VSG [of any given port] further includes including vehicles due to become sufficiently charged at the port within a preset time period in the VSG.~~
18. (Once Amended) A method as recited in claim 15, wherein defining a [the] VSG [of any given port] further includes including vehicles due to become sufficiently charged at the port within a preset time period in the VSG.
19. (Twice Amended) A method for allocating one or more vehicles from a fleet of electric powered vehicles to one or more users, [wherein] each vehicle [has] having a state of charge (SOC) at any given time and [the] a charging rate [at which any given vehicle within can be charged is] dependent upon the SOC, [of the vehicle] wherein a plot of the SOC of the vehicle being charged versus time defines a generally linear region [at lower] below an SOC [levels] level and a nonlinear region [at higher] above the SOC [levels] level, the method comprising:

receiving a travel request from a user;
selecting a group of one or more vehicles from the fleet
based on vehicle location information, [where] each
selected vehicle [has a] having an SOC sufficient
to meet the travel request from the user; and
allocating [the] a vehicle within the group having an SOC
[within] above the [nonlinear region] SOC level;
[and, if] and
in response to no vehicles within the group have an SOC
[within] above the [nonlinear region] SOC level,
[then] allocating [the] a vehicle within the group
having [the] a highest SOC for the user.

- PM
Contd
20. (Twice Amended) A vehicle allocation system for
allocating one or more vehicles from a fleet of
[electric] electrically powered vehicles to one or more
users, wherein each vehicle has a state of charge (SOC)
at any given time, the vehicle allocation system
comprising:
one or more ports at geographically remote locations
relative to each other, each port having a user [-]
interface terminal for receiving a travel request
from a user;
a computer system [coupled] in communication with at
least one user [-] interface terminal and
programmed, in response to [respond to] a travel
request received from a user, for selecting a group
of one or more vehicles from the fleet based on
vehicle location information, where each selected
vehicle has an SOC sufficient to meet the travel

request from the user, [said computer system being further programmed to allocate the] and for allocating a vehicle having [the] a highest SOC in the group for the user.

21. (Once Amended) A system as recited in claim 20, wherein said computer system comprises a central station computer system [coupled] in communication with a plurality of user [-] interface terminals at [a plurality of] said one or more ports.

22. (Once Amended) A system as recited in claim 20, wherein: said user interface terminal is configured to receive the travel request [comprises] including information associated with an expected distance of travel; and [wherein] said computer system is programmed for selecting the group [comprises] of one or more vehicles, each with a sufficient SOC to travel the expected distance.

23. (Once Amended) A system as recited in claim 20, wherein: said user interface terminal is configured to receive the travel request [comprises] including information associated with an expected time period of use; and [wherein] said computer system is programmed for selecting the group [comprises] of one or more vehicles, each with a sufficient SOC to travel for the expected time period.

24. (Once Amended) A system as recited in claim 20, wherein:

said user interface terminal is configured to receive the
travel request [comprises] including information
associated with an expected destination port and an
expected distance of travel beyond a direct route
to the destination port; and
[wherein] said computer system is programmed for
selecting the group [comprises] of one or more
vehicles, each with a sufficient SOC to travel the
combined distance of the direct route to the
destination port and expected distance of travel
beyond the direct route.

25. (Once Amended) A system as recited in claim 20, wherein
each [port is provided with] of one or more ports
includes a display device for displaying identification
[information, identifying an] information of the
allocated vehicle to [a] the user.
26. (Once Amended) A system as recited in claim 20, wherein
each of user [-] interface terminals comprises:
a display device for displaying a map to the user; and
an [user/display] interface for receiving user-selected
map locations corresponding to locations on the
displayed map from [a] the user.
27. A system as recited in claim [21] 20, wherein said
computer system is programmed to:
define, for each port, [has] a vehicle search group (VSG)
in which more than one and less than all of the
vehicles from the fleet may be located at any given
time; and

[said computer is programmed to] select a group of one or more vehicles by selecting [a] the group from the VSG of the port from which travel information is received.

28. (Once Amended) A system as recited in claim 27, wherein: each port includes a vehicle parking facility at which one or more vehicles may be parked at any given time; and said computer system is programmed to define the VSG of a given port [includes] including vehicles parked at [a] the parking facility at the port.

29. (Once Amended) A system as recited in claim 28, wherein: each port includes at least one vehicle charging facility; and said computer system is programmed to define the VSG of a given port further [includes] including vehicles due to become sufficiently charged at the port within a preset time period.

30. (Once Amended) A system as recited in claim 28, wherein said computer system is programmed to define the VSG of a given port further [includes] including vehicles due to arrive at the port within a preset time period.

31. (Once Amended) A system as recited in claim [30] 20, wherein [each port includes at least one vehicle charging facility and the VSG of a given port further includes vehicles due to become sufficiently charged at the port

within a preset time period] said computer system is further programmed for:
allocating a vehicle within the group having an SOC above a predetermined SOC level; and
in response to no vehicles within the group have an SOC above the predetermined SOC level, allocating a vehicle within the group having the highest SOC for the user.

32. (Once Amended) A system as recited in claim 20, further comprising a plurality of vehicle subsystems associated on a one-to-one basis with the vehicles from the fleet, each vehicle subsystem including:
a status sensor configured [means] for detecting the SOC of [its associated] the vehicle; and
a data transmitter configured for transmitting information corresponding to the detected SOC to the computer system.
33. (Once Amended) A system as recited in claim 20, wherein:
said user interface terminal is configured to receive the request [includes] including user identification information; and [wherein]
said computer system is programmed [to] for allocating [further base] the vehicle [selection on] further in response to the user identification information.
34. (Once Amended) A system as recited in claim 33, wherein
said computer system includes a storage of vehicle preference information associated with each user identification and is programmed for allocating the [to

retrieve from storage] vehicle in accordance [preference information associated] with the user identification information [received from a port terminal] and [to further base the vehicle selection on] the vehicle preference information.

35. (Once Amended) A system as recited in claim 34, wherein the vehicle preference information comprises information [from the group consisting of:] number of vehicle wheels, number of vehicle doors, preferred minimal SOC or range of SOC's, distance usually traveled, [and] or usual duration of vehicle use.
